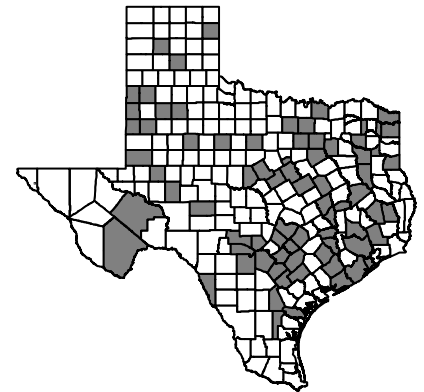




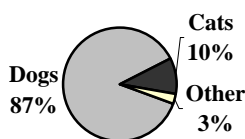
## 2001 Severe Animal Attack and Bite Surveillance Summary

### Introduction

During 2001, a total of 484 severe animal attacks or bites were voluntarily reported to the Zoonosis Control Division of the Texas Department of Health by local health departments, law enforcement agencies, animal control agencies, and emergency health care providers. Reports were submitted from 78 of Texas' 254 counties (Figure 1). A "severe attack" is defined as one in which the animal repeatedly bites or vigorously shakes its human victim, and the victim, or a person intervening, has extreme difficulty terminating the attack. A "severe bite" is defined as a puncture or laceration made by an animal's teeth which breaks the person's skin, resulting in a degree of trauma which would cause most prudent and reasonable people to seek medical care for treatment of the wound, without consideration of rabies prevention alone. Note: Percentages in some tables may not equal 100% due to rounding.



**Figure 1. Texas Counties Submitting Reports - 2001**



**Figure 2. Species Distribution, 2001**

### Species

Domestic dogs and cats accounted for 97.1% of all reported serious attacks (Figure 2). The overwhelming majority (421 cases, 87.0%) involved domestic dogs, while domestic cats were involved in 49 cases (10.1%). The other species identified were: squirrel (4 reports, 0.8%); rat (3 reports, 0.6%); monkey (2 reports, 0.4%); and bat, donkey, horse, rabbit, tiger (1 report each, 0.2%)

### Canine Breed

The specific breed of canine (domestic dog and wolf-dog hybrids) was listed in 337 reports. Of the 73 breeds and breed crosses reported, 7 breeds and breed crosses constituted 64.2% of the reports (Table 1). (Note: the number of animals in various dog breeds in the overall canine population is unknown; therefore, no conclusions can be drawn concerning whether dogs of these 7 breeds are prone to bite more often than other breeds or if these are merely the more popular breeds.) No other breeds or breed crosses represented more than 3% of the reports. Small breeds of dogs were infrequently reported because they are less likely than large breeds to inflict severe wounds.

Breed	Number	%
Chow/Chow Cross	52	15.5
Pit Bull/Pit Bull Cross	43	12.8
German Shepherd/Shepherd Cross	42	12.5
Rottweiler/Rottweiler Cross	27	8.0
Labrador Retriever/Lab Cross	23	6.8
Blue Heeler	18	5.3
Chihuahua/Chihuahua Cross	11	3.3

**Table 1. Canine breeds reported in severe animal attacks or bites, 2001**

## Animal's Sex

In severe animal attacks or bites involving canines (domestic dogs and wolf-dog hybrids), the animal's sex was specified in 350 reports. Of the 57 female canines whose reproductive status was specified,

17 (29.8%) were spayed and 40 (70.2%) were intact. Of the 166 male canines whose reproductive status was known, 24 (14.5%)

were castrated and 142 (85.5%) were intact (Figure 3). While the exact proportion of sterilized versus intact dogs in the overall canine population in Texas is unknown, a study of the reproductive status of almost 25,000 dogs conducted by the Zoonosis Control Division of the Texas Department of Health in 1997 revealed that 2,788 (23%) of male dogs and 3,756 (31%) of female dogs in the sample had been surgically sterilized. The sample data were drawn both from animal shelter records of dogs which were licensed and from dogs which had been impounded in animal shelters. When comparing the sex and reproductive status of the study population with 1,724 dogs involved in severe bites for the five-year period 1996 - 2000, the following conclusions may be made: spayed and intact females appear to bite at about the same proportion as their prevalence in the overall population; and intact males appear to bite at twice the rate of neutered males.

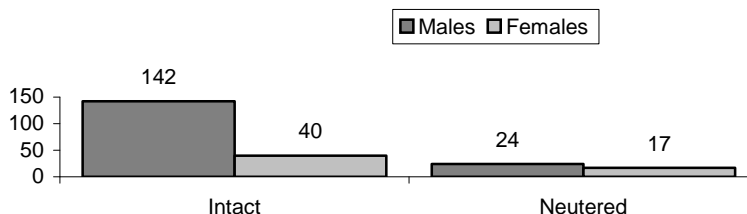


Figure 3. Sex and reproductive status of canines involved in severe animal attacks or bites, 2001

## Animal's Behavior

The animal's behavior prior to the attack was listed in 339 reports. The animal was described as docile, friendly or playful in 215 cases (63.4%). The animal displayed warning signals (such as barking, growling, hissing, curling lip, or baring teeth) in only 124 (36.6%) of the reports. Of the 361 reports stating whether multiple animals were involved, 49 (13.6%) incidents involved an attacking animal that was part of a larger group of animals while in 312 (86.4%) incidents involved the animal acting alone.

## Rabies Vaccination Status

The animal's rabies vaccination status was specified in 300 (63.8%) of 470 reports involving canines (domestic dogs and wolf-dog hybrids) or domestic cats. Of all pets involved in attacks/bites in which the vaccination status was known, 148 (49.3%) had not received a rabies vaccination within the past 12 months, and 152 (50.7%) were currently vaccinated (Figure 4).

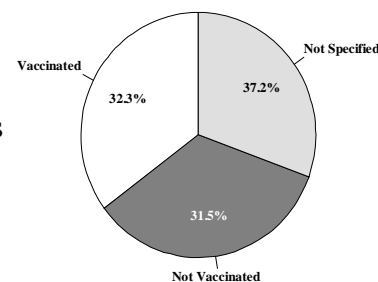


Figure 4. Rabies vaccination status of canines and domestic cats involved in severe animal attacks or bites, 2001

While over one-half of the dogs with known vaccination status were currently vaccinated, only one-quarter of cats whose vaccination status was known were currently vaccinated.

## Animal Involved in Previous Attack

Of the 224 reports in which it was definitely known whether or not the animal was involved in previous severe attacks or bites on people or animals, 181 (80.8%) had not been involved in previous attacks and 67 (7%) had been involved in previous attacks. Of the 52 reports that included information on whether the previous attacks were against people or animals, 43 animals had been involved in attacks against people, 8 had been involved in attacks against other animals, and 1 had been involved in attacks against both people and animals.

## Provocation/Special Circumstances

Circumstances described in 196 reports included situations in which the attack could be considered provoked. No association was found between the victim's age and whether the attack was provoked. Special circumstances involved in the attacks included (in order of frequency) guarding, teasing, hunger/eating, dog fight, being startled, estrus, the presence of puppies/kittens, and injury.

## Extent of Injury

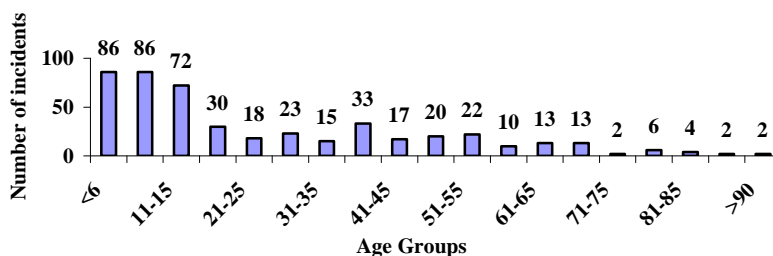
Of the 176 reports in which the extent of injury was specified, 30 (17%) attack victims required surgery, 40 (23%) required hospitalization, and 130 (74%) required sutures.

## Victim's Sex and Age

In the 469 records that specified the victim's sex, 267 victims (56.9%) were male and 202 victims were female (43.1%). These percentages remained relatively constant over the entire age range of the victims. The victim's age was listed on 474 records; children less than 11 years of age represented 36.3% of these victims (Table 2). The mean age was 24.7 years, the median was 15 years, and the mode was 4 years (Figure 5). When considering the overall population of Texas, children less than 11 years of age were 2.1 times more likely than the remainder of the population to be a victim of a severe animal attack.

Number	Age Group	%
86	<6	18.1
86	6-10	18.1
102	11-20	21.5
158	21-60	33.3
42	>60	8.9

**Table 2. Age of victims of severe animal attacks or bites, 2001**



**Figure 5. Age distribution in severe bite incidents, 2001**

## Anatomic Location of Injury

Many of the attack victims received wounds at multiple anatomic locations. Of the 589 reports that specified the site of injury, the following sites were listed:

Legs	130 (27.9%)	Torso	34 (7.3%)
Hands	103 (22.1%)	Feet	17 (3.6%)
Head	118 (25.3%)	Neck	11 (2.4%)
Arms	66 (14.2%)		

When the site of injury is compared to age, the percent experiencing trauma to the head decreases significantly as the victim's age (and presumably height) increases. While children less than 11 years of age were victims in 36.3% of the severe attacks where the site of the bite was specified, they sustained 67% of all head injuries.

### High Risk Occupation

Seventeen reports included victims who were engaged in what would typically be considered a high risk occupation for animal bites, including:

Law enforcement/Animal control	6	Utility worker	3
Postal employee	4	Home health worker	1
Other delivery person	3		

### Charges Filed

Of the 421 reports involving canines (domestic dogs and wolf-dog hybrids) and domestic cats, charges were filed against the animal's owner in 35 (8.3%) reports. Seven reports contained multiple violations. The violations were as follows:

<u>Number of reports</u>	<u>Violation</u>
25	animal-at-large
11	failure to vaccinate against rabies
3	dangerous/vicious dog
6	failure to license

**Recommendations:**

A review of the surveillance data can help formulate prevention strategies. As with many other public health efforts, education and legislation are two key components in reducing the frequency of animal bites.

*Education*

Develop and coordinate educational efforts through humane organizations, animal control agencies, schools, family care practitioners, veterinarians, and parents.

Teach children to understand basic canine behavior and to avoid circumstances that may evoke an angry response from a dog.

Inform dog owners that through their interaction with their pets, they can reduce the likelihood of owning an animal that will bite. Lack of socialization, improper training, abuse, and failure to observe early signs of aggression all contribute to a dog attack.

Educate prospective owners to avoid breeds that have a reputation for being unpredictable or aggressive particularly in families with children.

Educate obstetricians and pediatricians to advise parents to never leave infants and toddlers unsupervised around any dog, even the family pet, regardless of how friendly the dog may appear. Extra attention should be lavished on the family dog when a new baby is brought into the home so that the pet does not feel “jealous” or that its position in the family is being threatened.

Promote surgical sterilization for safety reasons as well as the health benefits to the animal and curtailment of pet overpopulation.

*Legislation and Enforcement*

Chapter 826 of the Texas Health and Safety Code states that failure to vaccinate dogs and cats annually is a Class C misdemeanor. Although reports indicated that almost one-half of the biting dogs and cats were not currently vaccinated against rabies, citations were issued in less than 3% of the cases. Increased enforcement of this law and existing local leash laws would provide incentives for dog owners to act responsibly.

Where community laws are lacking, enact local leash and nuisance laws and strictly enforce them.

Develop local ordinances to offer incentives (such as decreased licensing fees) for owners whose dogs complete a dog obedience class.

Enforce the Texas Dangerous Dog Act (Chapter 822 of the Texas Health and Safety Code), which is designed to minimize human exposure to dogs deemed to be dangerous.

Encourage reporting of all bites to the Local Rabies Control Authority (as mandated by Chapter 826 of the Texas Health and Safety Code). Reported rates influence public health policies in such matters as leash laws, impoundment of strays, amount of money allocated for animal control, and rabies vaccination programs for both pets and people.

Chapter 828 of the Texas Health and Safety Code requires either surgical sterilization or a voucher for sterilization of all animals adopted from animal shelters in cities with populations greater than 10,000 and counties with populations greater than 20,000. Make efforts locally to actually sterilize the animal rather than issue the owner a voucher to be used for sterilization because redemption of sterilization vouchers tends to be low.